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DISTRIBUTION
PROJECT MANAGERS' MEETING,
200 AREA GROUNDWATER and SOURCE OPERABLE UNITS
March 17, 2016

DOE/RL

(No hard copy distribution)

EPA

Emerald Laija A3-46

Ecology

Nina Menard H0-57

CHPRC

Jane V. Borghese (original) H8-43

Administrative Record (2) H6-08

Correspondence Control G3-39



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**Meeting Minutes Transmittal/Approval
Project Managers' Meeting
200 Area Groundwater and Source Operable Units
March 17, 2016**

APPROVAL:  DATE: 3/17/16
Michael Cline, 200 Area Unit Manager, DOE/RL

APPROVAL:  DATE: 3/17/16
Al Farabee, 200 Area Project Manager, DOE/RL

APPROVAL:  DATE: 3/21/16
Emerald Laija, 200 Area Project Manager, EPA

APPROVAL:  DATE: 3/21/16
Nina Menard, 200 Area Project Manager, Ecology

HFFACO Action Plan Section 4.1 requires signature of agreements and commitments made during the Project Manager Meeting. Approval of these minutes documents approval of agreements and commitments documented in Attachment 4 and 5 to these minutes. Approval does not apply to any other attachments, which are included in these minutes for informational purposes.

Minutes of the 200 Area Project Managers' Meeting of March 17, 2016 are attached. Minutes are comprised of the following:

Attachment 1	Attendance Record
Attachment 2	Agreements and Issues List
Attachment 3	Action Item List
Attachment 4	Operable Units and Facilities Status
Attachment 5	Documents for the Administrative Record
Attachment 6	Groundwater Monitoring Report – March 2016 (February 2016 Data)
Attachment 7	TPA-CN-0719
Attachment 8	TPA-CN-0720

200 Area Project Managers' Status Meeting
March 17, 2016

PRINTED NAME	ORGANIZATION	O.U. ROLE	TELEPHONE
Stanley Cimon	ODOE-		(541) 240-0101
Meghann Stewart	CHPRC		373-5818
Craig Cameron	EPA		376-8665
Mary Downes	CHPRC		438-5516
Stephanie Schuf	ECV		372-7929
JULIE REDDICK	DOE		376-2003
Zelma Jackson	ECV		372-7910
Dib Goswami	"		372-7950
Jeanne Stults	CHPRC		376-7510
John Sands	RL		372-2282
Michael Cline	DOE-RL		376-6070
Jim Hanson	DOE-RL		373-9068
Kate Amrhein	DOE-RL		376-9391
Tim Mullin	Ecology		372-7970
KIM WELSH	ECOLOGY		372-7882
RD/Hildebrand	DOE		373-7826
Nina Menard	Ecology		372-7941
Deborah Singleton	Ecology		372-7923
Dan Bass	WDOT		509 943-6508

**200 Area Project Managers' Meeting
Agreements and Issues List
March 17, 2016**

Agreement: None

Issue: None

Announcements: None

Delegations for March 17, 2016 PMM meeting:

EPA Craig Cameron for Emerald Laija

**200 Area Project Managers' Meeting
March 17, 2016**

CHPRC-1601102
Attachment 3

OPEN ACTION ITEM TRACKING

Action #	Action/Subject	Assigned To	Owed To	Assigned Date	Original Due Date	Adjusted Due Date	Status
165	EPA requests status of REDOX roof.	RL/ W. Woolery	EPA	9/17/15	11/19/15	3/17/2016	Closed. Status was given.
167	DOE to discuss completion criteria for M-016-119-T01 (due date is 2020) with EPA and Ecology	RL/J.P. Hanson	EPA and Ecology	11/19/15	3/31/16	5/31/2016	Closed for EPA; Ecology still needs to review
170	Set up meeting to discuss PFP scope between EPA, Ecology and RL.	RL/John Sands	EPA and Ecology	3/17/16	4/17/16		
171	Set up meeting to discuss U Canyon scope between EPA, Ecology and RL.	RL/John Sands	EPA and Ecology	3/17/16	5/17/16		
172	P-037-12 milestone? Is it to be deleted	RL/AI Farabee	Ecology	3/17/16	4/17/16		
173	Set up meeting between all parties to discuss removal actions that are planned	EPA/Craig Cameron	RL and Ecology	3/17/16	4/17/16		

200 AREA PROJECT MANAGERS' MEETING

Milestones and Operation Status by OU (January – February 2016 Status)

March 17, 2016

Deep Vadose Zone 200-DV-1 Ecology Lead (RL – John Morse, CHPRC – Mark Byrnes)

- Requested that the responses to Ecology comments on the RI/FS Work Plan Draft A be moved out to April 14, 2016, so that the final negotiated Central Plateau principals and parameters can be included.
- Drilling began October 1, 2015, at the BY Cribs locations using a Becker Hammer rig. At this time, casing has successfully been installed from surface to below the high radiological interval in 14 of 21 boreholes as indicated by downhole logging. These 14 borehole locations have been cleared for sonic drilling, which will drill from below the high radiological risk interval to total depth.
- The sonic rig mobilized to the BY Cribs on December 14, 2015, and has completed 4 characterization boreholes by February 29, 2016. Electrodes have been successfully installed in these boreholes.

Primary Borehole ID#	Waste Site	Becker/ Geoprobe Push Depth (ft)	Estimated High RAD Interval (ft)	Current Sonic Rig Depth (ft)	Target Depth of Investigation (ft)	Total Number of Samples Collected	Total Number of Samples To Be Collected
C9550	By Cribs	43.8	15-45	200.5	197	11	11
C9549	By Cribs	45.4	20-45	200.5	197	10	11
C9552	By Cribs	45	10-45	202.5	197	11	14
C8706	By Cribs	45.3	14-45	202.3	197	11	11
C9491	216-B-37	51.2	14-52	TBD	222	3	8
C9487	216-B-7 A&B	33.4	19-33	TBD	237	3	13
C9490	219-B-9	34.2	14-34	TBD	250	3	9
C9489	219-B-9	34.2	12-35	TBD	250	3	9
C9492	216-T-5	40.5	NA	TBD	95	3	8
C9494	216-T-5	40.4	0-35	TBD	95	0	GPL only
C9495	216-T-14	35.8	0-35	TBD	105	0	GPL only
C9496	216-T-15	35.7	0-35	TBD	105	0	GPL only
C9505	216-T-15	43.5	10-34	TBD	105	0	5
C9510	216-T-25	39	14-40	TBD	115	0	9
C9511	216-T-23	43.9	14-40	TBD	115	0	9
C9506	216-T-18	TBD	12-34	TBD	100	0	8
C9512	216-S-9	TBD	30-46	TBD	134	0	9
C9514	216-S-21	TBD	15-40	TBD	121	0	9
C9488	216-B-8	TBD	25-42	TBD	224	0	8
C9499	216-T-6	TBD	15-43	TBD	105	0	8
C9502	216-T-6	TBD	15-43	TBD	105	0	GPL only

- The perched water removal system was shut down on August 20, 2015, to support construction of two new perched water removal stations and retrofit of the original station. Construction of the new system and Operational Acceptance Testing was completed in February. The new system is now operational and undergoing a series of testing to help determine the extent of the perched water. The first test, consisting of operating each of the three extraction wells for one hour, was successfully completed on February 18, 2016. Start of Test 2, monitoring recovery and baseline conditions, began on February 18 and will continue until water levels stabilize in the three extraction wells. Once water levels stabilize, one extraction well will be operated for one week while the other two wells are offline.

M-015-110B: Submit CMS & FS and PP/PCAD for the 200-DV-1 OU to Ecology, 9/30/2015

- Status: Tentative Agreement signed on 10/26/15 proposed a due date of 9/30/2023.

Regulatory Agency Comments: N/A

200-EA-1 and 200-IS-1 Ecology Lead (RL- Doug Hildebrand, CHPRC – Bert Day)

- 200-IS-1 Operable Unit Scope
 - Submitted draft 200-IS-1 change package C-13-01 for Ecology review on December 19, 2015, (change package incorporates the TSD agreements between RL and Ecology and describes the criteria used during the workshops for TSD determination).
 - Conducted additional pipelines evaluations supporting TSD determinations; information will be used to revise the change package C-13-01.
 - Initiated 23 new waste unit scoping summaries and completed 58 scoping summaries
- Resolved informal Ecology comments on Chapter 2 on February 25, 2016.
- Pending informal Ecology concurrence on Chapter 1 and related Chapter 5 associated with the RCRA/CERCLA integration
- Developed path forward to discuss the waste unit and bin initial evaluations, data needs, data gaps, and characterization strategy during the project team meeting held March 2, 2016.
- Discussed initial conceptualization of project specific TSD related closure plan groupings; further discussions planned.

M-015-112: Submit Draft B, 200-IS-1 OU Pipeline System Waste Sites RFI/CMS/RI/FS WP to Ecology, including a schedule of completion dates for major tasks and deliverables, 2/28/2014.

- Status: Dispute resolution. The parties are currently working on identifying the Work Plan scope (i.e., change package C-13-01), TSD identification, and associated revised delivery schedule. The dispute resolution is currently extended to March 31, 2016.

M-015-92A: Submit a RFI/CMS & RI/FS work plan for the 200-EA-1 OU (200 East Inner Area) to Ecology, 6/30/2015

- Status: Tentative Agreement signed on 10/26/15 proposed a due date of 9/30/17.

M-015-92B: Submit CMS & FS Report(s) & Proposed CA Decision(s)/PP(s) for the 200-EA-1 and 200-IS-1 OUs (Central Plateau 200 East Inner Area) to Ecology, 12/31/2016

- Status: Tentative Agreement signed on 10/26/2015 revised the text to remove the 200-IS-1 OU and proposed a due date for 200-EA-1 to 11/30/2022.

P-015-92C: Submit CMS & FS Report & Proposed CA Decision/PP for the 200-IS-1 OU to Ecology, 03/31/23

- Status: Tentative Agreement signed on 10/26/2015 proposed milestone.

Regulatory Agency Comments: N/A

200-SW-2 Ecology Lead (RL- Doug Hildebrand, CHPRC – Bert Day)

- Work Plan
 - Comment resolution and draft Rev. 0 delivery extended to March 2016. This extension was requested to allow time for agency agreement on the Central Plateau principals and parameters.
 - Continuing discussions with Ecology associated with the Green Islands and associated waste designation determinations
- Characterization:
 - Conducting data evaluation and reviews associated with the aerial radiation survey.

M-015-93B: Submit RFI/CMS & RI/FS Report & Proposed CA Decision/PP for 200-SW-2, 12/31/2016

- Status: Tentative Agreement signed on 10/26/15 proposed a due date of 1/31/2023.

P-015-93C: Initiate characterization of the 200-SW-2 OU unlined landfills, 9/30/2018

- Status: Added milestone based on public comments.

Regulatory Agency Comments: N/A

200-SW-1 Ecology Lead (RL- Doug Hildebrand)

- EA released for public review August 29, 2011. The last of the public comments were received on November 17, 2011. Due to budgetary constraints, no further action is scheduled for FY2015 or planned for FY2016.

Regulatory Agency Comments: Draft P-037-12 milestone (for closure) will be deleted and closure will be addressed through the NRDWL permit.

200-BC-1 and 200-WA-1 EPA Lead (RL- John Sands, CHPRC – Patrick Baynes)

- Due to the nature and extent of the EPA comments on the Draft B RI/FS Work Plan, RL will request an extension for comment resolution through August 15, 2017. Some of the issues are cross-cutting with other Operable Units. DOE and CHPRC are working to ensure consistency in resolving the comments.
- One of the areas that is being worked includes pipeline segmentation and OU assignment. Some of the pipelines around PFP are being considered for segmentation with some segments being re-assigned from 200-CW-5, 200-PW-1, and 200-PW-6 to 200-WA-1.

M-015-91B: Submit Feasibility Study Report(s) and Proposed Plan(s) for the 200-BC-1/200-WA-1 operable units (200 West Inner Area) to EPA, 12/31/2015

- Status: Tentative Agreement signed on 10/26/2015 proposed a due date of 7/31/2021.

P-015-98: Complete remedial investigation of U Plant related waste sites located in 200-WA-1 in accordance with the WA-1 RI/FS Work Plan, 6/30/2019

- Status: Tentative Agreement signed on 10/26/2015 proposed milestone.

P-015-99: Complete remedial investigation of PFP related waste sites located in 200-WA-1 in accordance with the WA-1 RI/FS Work Plan, 6/30/2019

- Status: Tentative Agreement signed on 10/26/2015 proposed milestone.

Regulatory Agency Comments: N/A

200-CW-1, 200-CW-3, 200-OA-1 EPA Lead (RL – Ben Vannah, CHPRC – Bert Day)

- Nothing to report

M-015-38B: Submit a FS Report and PP(s) for 200-CW-1, 200-CW-3, and 200-OA-1 OUs for Waste Sites in the Outer Area of the Central Plateau to EPA, revised due date to be identified by 10/30/2015

- Status: Tentative Agreement signed on 10/26/2015 proposed text changes and a due date of 7/31/2023.

Regulatory Agency Comments: N/A

200-BP-5 and 200-PO-1 Ecology Lead (RL – John Morse, CHPRC – Curt Wittreich)

- Completed the Decisional Draft Treatability Test Report, which is currently under review. The Draft A report is expected to be complete by the end of April. Groundwater extraction continued to further assess contaminant removal.
- Continued the design of an extension to the 200-BP-5 cross-site pipeline from the current extraction well 299-E33-268 to well 299-E33-360 located on the north side of B-Plant. Construction is expected to start in April.
- Provided a Draft Rev. 0 200-BP-5 EE/CA to Ecology and RL on February 29, 2016, for a final check review.

M-015-21A: Submit 200-BP-5 and 200-PO-1 OU FS Report & PP(s) to Ecology, 6/30/2015

- Status: Tentative Agreement signed on 10/26/2015 proposed a due date of 6/30/2018.

Regulatory Agency Comments: N/A

M-015 Dual Agency Lead

- The major milestone may be impacted by the interim OU milestones statused above.

M-015-00: Complete the RI/FS Process for all Non-Tank Farm OUs, 12/31/2016

- Status: Tentative Agreement signed on 10/26/2015 proposed a due date of 6/30/2026.

Regulatory Agency Comments: N/A

200-PW-1/3/6 and CW-5 EPA Lead (RL- Robert Long, CHPRC – Patrick Baynes)

- Met with EPA on February 22, 2016, to discuss the proposed comment responses for the 200-CW-5 and 200-PW-1/3/6 RD/RAWP Draft A. There were about 6 areas where EPA requested minor changes to the proposed response. DOE has generally agreed with all of the EPA requested changes.

Regulatory Agency Comments: N/A

200-PW-1 Soil Vapor Extraction Operations EPA Lead (RL – John Morse, CHPRC – Mark Byrnes)

- On November 2, 2015, EPA gave their concurrence on terminating all future SVE operations. Currently preparing the site closeout Remedial Action Report for EPA's concurrence. The draft Remedial Action Report is being prepared.

Regulatory Agency Comments: N/A

200-UP-1 EPA Lead (RL – Kate Amrhein, CHPRC – Curt Wittreich, PNNL-D. Wellman [I-129])

- Completed the drilling of the first (299-W19-116) of 4 groundwater monitoring wells.
- Conducted a DQO meeting on February 17, 2016, to discuss PNNL, 200-UP-1, and 200-WA-1 (source site) integrated data needs. Additional vadose samples were identified for two U Plant Area wells (299-W19-115 and 299-W19-123).
- A TPA change notice to the 200-UP-1 RD/RAWP was drafted to define remedy performance groundwater monitoring wells required to satisfy TPA Milestone M-016-193.

M-016-191: Complete acceptance test procedures and operational test procedures and initiate startup operations for the U Plant area P&T for uranium and tech-99, and Iodine-129 hydraulic containment system, 3/30/2016.

- Status: Completed on December 7, 2015.

M-016-192: Submit I-129 Technology Evaluation Plan Draft A to EPA as defined in the UP-1 RD/RA WP, 6/17/2016.

- Status: Completed on December 3, 2015.

M-016-193: Complete the remedial design investigation of the SE chromium plume, including the installation of new wells and evaluation of the GW monitoring data and install monitoring wells needed for remedy performance monitoring as defined in the UP-1 RD/RA WP, 9/30/2017.

- Status: On schedule.

Regulatory Agency Comments: N/A

200-ZP-1 EPA Lead (RL – John Morse, CHPRC – Byrnes/Barrett)

- Construction of new monitoring well 299-W13-2 began on February 18, 2016. The well materials have been installed and surging of the filter pack has been completed. Well completion is expected early March.
- The redrill and reconstruction of injection well 299-W7-14 continues. All of the broken casing was removed from the borehole and the redrilling of the well in the same borehole is at 136 ft bgs as of March 1, 2016.

Regulatory Agency Comments: N/A

M-016 Dual Agency Lead

- Remediation efforts are on-going to meet the target date T01.
- The major milestone may be impacted by the interim OU milestones stated above.
- Preparing schedule for proposed milestone P-016-250.

M-016-119-T01: DOE will have a remedy in place to contain existing groundwater plumes (except iodine, nitrate, and tritium) in the 200 NPL Area, 12/31/2020

- Status: On schedule.

M-016-00: Complete Remedial Actions for all Non-Tank Farms & Non-Canyon OUs, 9/30/2024

- Status: Public Comments modified Tentative Agreement due date to 9/30/2024.

P-016-250: Develop a three year rolling prioritized schedule consistent with site-wide clean-up priorities to implement waste site removal actions per Action Memoranda (DOE/RL-2009-37, DOE/RL-2009-48 and DOE/RL-2009-86), 3/31/2016 and annually thereafter.

- Status: Tentative Agreement signed on 10/26/2015.

P-016-85A: Complete remote excavation for the 300-296 waste site, 9/30/2019.

- Status: Public Comments modified Tentative Agreement to add this milestone.

Regulatory Agency Comments: N/A

M-024 Ecology Lead (RL-Ben Vannah, CHPRC-Dave Capelle)

M-024-67I: Initiate Discussion of Well Commitments, 6/1/2016

- Status: On schedule.

M-024-67-T01: Conclude Discussion of Well Commitments, 8/1/2016

- Status: On schedule.

M-024-67: DOE Shall Complete Construction of all CY2016 Wells Identified in M-24-13-01, 12/31/2016

- Status: Completed on 09/14/15 per RL completion letter 16-AMRP-0095 dated 02/03/16.

M-024-68: DOE Shall Complete Construction of all CY2017 Wells and before Identified in M-24-14-01, 12/31/2017

- Status: On schedule.

M-024-000: Complete Well Installations with RCRA/CERCLA Requirements, TBD - In program planning

- Status: On schedule.

Regulatory Agency Comments: N/A

200 Area RCRA TSD Closures Ecology Lead (RL – Mostafa Kamal, CHPRC – Bert Day)

M-037-10: Complete Unit-Specific Closure Requirements According To The Closure Plan(s) for seven (7) TSD Units: 207-A South Retention Basin, 216-A-29 Ditch, 216-A36B Crib, 216-A-37-1 Crib, 216-B-63 Trench, Hexone Storage and Treatment Facility (276-S-141/142), and 241-CX Tank System (241-CX-70/71/72), 9/30/2020

- Status: On Schedule. Tentative Agreement signed on 10/26/2015 proposed moving 241 CX Tank System to a separate, newly created milestone P-037-13 due 09/30/2022.

M-037-11: Complete unit-specific closure requirements for two (2) TSD Units; 216-B-3 Main and Pond system and 216-S-10 Pond and Ditch, 9/30/2016

- Status: On schedule. Public comments on Tentative Agreement changed due date to 9/30/2024.

P-037-12: Complete closure requirements for Non-Radioactive Dangerous Waste Landfill, Solid Waste Landfill, and 400 Area Waste Management Unit Fuel Storage Facility and Interim Storage Area, 9/30/2025

- Status: Public comments on Tentative Agreement changed due date to 9/30/2025.

P-037-13: Complete unit-specific closure requirements according to the closure plan 241-CX Tank System (241-CX-70/71/72), 9/30/2022

- Status: Tentative Agreement signed on 10/26/15 proposed milestone.

Regulatory Agency Comments: Draft P-037-12 milestone (for closure) will be deleted and closure will be addressed through the NRDWL permit.

U Plant Canyon EPA Lead (RL – Wade Woolery, CHPRC – TBD)

M-016-200A: Complete U Plant Canyon (221-U) demolition in accordance with the RD/RAWP, 9/30/2017

- Status: Public comments on Tentative Agreement changed due date to 9/30/2024.

M-016-200B: Complete U Plant Canyon (221-U) barrier construction in accordance with the RD/RAWP, 9/30/2021

- Status: Public comments on Tentative Agreement changed due date to 9/30/2027.

Regulatory Agency Comments: N/A

Canyon Facilities EPA/Ecology Lead (RL – Ray Corey, CHPRC – Moses Jaraysi)

M-085-02: Submit Change Package to Establish Schedule for Submittal of RI/FS Work Plans for Canyons and RAWPs for 224B & 224T, 9/30/2015

- Status: Complete.

M-085-01: Submit a Change Package to Establish a Date for Major Milestone M-085-00, 9/30/2022

- Status: On Schedule. Tentative Agreement signed on 10/26/2015 proposed a due date of 06/30/2026.

P-085-70: Submit Remedial Investigation/Feasibility Study Work Plan for 200-CB-1 to Ecology, 09/30/2019

- Status: Tentative Agreement signed on 10/26/15 proposed milestone.

P-085-72: Submit Removal Action Work Plan for 224-B to Ecology, 09/30/2020

- Status: Tentative Agreement signed on 10/26/15 proposed milestone.

P-085-74: Submit engineering evaluation/cost analysis (EE/CA) to Ecology for a non-time-critical removal action to address high priority cleanup for B Plant Canyon in the 200-CB-1 operable unit, 06/30/2018

- Status: Tentative Agreement signed on 10/26/15 proposed milestone.

P-085-76: Initiate response actions in accordance with action memorandum for a non-time-critical removal action to address high priority cleanup for B Plant Canyon in the 200-CB-1 operable unit, 09/30/2025

- Status: Tentative Agreement signed on 10/26/15 proposed milestone.

P-085-80: Submit Remedial Investigation/Feasibility Study Work Plan for 200-CP-1 to Ecology, 09/30/2020

- Status: Tentative Agreement signed on 10/26/15 proposed milestone.

P-085-80A: Submit Preliminary Report on the structural integrity of PUREX Storage Tunnel #1, 9/30/2018.

- Status: Public comments on Tentative Agreement added this milestone.

P-085-82: Submit engineering evaluation/cost analysis (EE/CA) to Ecology for a non-time-critical removal action to address high priority cleanup for the PUREX Plant in the 200-CP-1 operable unit, 12/31/2017

- Status: Tentative Agreement signed on 10/26/15 proposed milestone.

P-085-84: Initiate response actions in accordance with action memorandum for a non-time-critical removal action to address high priority cleanup for the PUREX Plant in the 200-CP-1 operable unit, 09/30/2025

- Status: Tentative Agreement signed on 10/26/15 proposed milestone.

P-085-90: Submit Remedial Investigation/Feasibility Study Work Plan for 200-CR-1 to EPA, 09/30/2021

- Status: Tentative Agreement signed on 10/26/15 proposed milestone.

P-085-100: Submit Removal Action Work Plan for 224-T to EPA, 09/30/2020

- Status: Tentative Agreement signed on 10/26/15 proposed milestone.

M-085-00: Complete response actions for the canyon facilities/associated past practice waste sites, other Tier 1 Central Plateau facilities not covered by existing milestones, and Tier 2 Central Plateau facilities. This includes B Plant, PUREX, and REDOX canyons and associated past practice waste sites in 200-CB-1, 200-CP-1, and 200-CR-1 OUs. The milestone does not include U Plant or T Plant canyons, TBD

- Status: In Program Planning.

Regulatory Agency Comments: EPA has a concern about the prioritization of work within available funding.

Documents for the Administrative Record

Number (Published Year)	Title	Driver
CHPRC-02867, 2016	Return on Investment: Replacement of High-Purge Volume Monitoring Well Pumps with Low-Purge Volume Bladder Pumps. Rev. 0	cleared March 2016
CHPRC- 1504415, 2016	Implementation Plan for the Installation of Low Purge Volume Bladder Pumps, Rev. 1	cleared March 2016
ECF-200E-15- 0037, 2016	Preparation of 200 East Area Water Table Maps for Calendar Years 2013 and 2014, Rev. 0	cleared Feb 2016

Project Managers Meeting – *March 2015 (February Data)*

Hanford's overall Site groundwater monitoring program managed by CHPRC (River Corridor and Central Plateau) coordinates collection of groundwater samples from wells and aquifer tubes, as well as surface water samples from springs. Sample trips are scheduled by target month and prioritized based on project needs.

Target sample dates (months) are chosen to minimize the number of sample trips by temporally aligning requests from multiple activities for a single location into a single trip where practical.

Sample Trip Status

For Fiscal Year 2016, Hanford's overall Site groundwater monitoring program has 2,779 sample trips scheduled for collection.

DOE has successfully completed 1,327 of 1,364 sample trips scheduled for October 2015 through February 2016. During February 2016, 171 Fiscal Year 2016 sample trips were successfully collected, of which; 1 was scheduled for December, 13 were scheduled for January, 148 were scheduled for February, and 9 were scheduled for March.

The specific wells, aquifer tubes, and springs sampled in the central plateau during February 2016 are listed in Table 1.

Awaiting Sample Trips

There are 54 sample trips that are awaiting collection. Of these, 3 require maintenance, 1 has access restrictions, 11 have adjusted schedules, 1 has been canceled, 4 are being evaluated for cancellation, 2 were unsuccessful in February, 5 are late, and 27 are awaiting collection at the month end.

Table 2 presents the sample trips for only the central plateau that were not successfully completed in February. Sample trips in Table 2 are grouped by fiscal month scheduled and groundwater interest area. This table clearly shows that the number of awaiting well trips decreases with time from the schedule date. Reasons for sample trips to be awaiting include; well maintenance, weather conditions, access restrictions, and resource limitations.

Upcoming Sample Trips

Sample trips for the central plateau only, scheduled for collection in March 2016 (and not collected before the target sample month) are listed in Table 3.

WMA C

WMA C samples for the second quarter of FY-2016 are scheduled to be collected in March 2016. WMA C monitoring wells are listed in Table 4.

Data Access

The sampling results are available in HEIS and can be accessed from the Environmental Dashboard Application which can be accessed from the HLAN at <https://ehs.chprc.rl.gov/eda/> or from the internet at <https://ehs.hanford.gov/eda/>.

Table 1 Wells, Aquifer Tubes, and springs in the Central Plateau Successfully Sampled in February 2016

200-BP	200-PO	200-UP	200-ZP
199-K-183	699-20-E12S	299-W19-105	299-W10-26
299-E26-15	699-20-E5A	299-W19-34A	299-W10-27
299-E33-20	699-2-3	299-W19-36	299-W11-13
299-E33-31	699-24-1P	299-W19-43	299-W11-40
299-E33-32	699-24-46	299-W19-49	299-W11-41
299-E33-334	699-29-4	299-W19-6	299-W11-42
299-E33-335	699-31-31	299-W23-4	299-W11-47
299-E33-337		699-34-72	299-W11-88
299-E33-338		699-38-61	299-W12-2
299-E33-339		699-38-68A	299-W12-3
299-E33-38			299-W13-1
299-E33-41			299-W14-13
299-E33-42			299-W14-15
299-E33-44			299-W14-18
299-E33-47			299-W15-11
299-E33-48			299-W15-33
299-E33-49			699-49-79

Table 2 Fiscal Year 2015 and 2016 Sample Trips in the Central Plateau awaiting at the end of February 2016

Quarter Scheduled	GWIA	Sample Site	Site Name	Scheduled Date	Frequency	Months Remain	Status	Comment
FY 2015 Q4	200-ZP	WELL	299-W14-15	8/1/2015	Quarterly	0	Late	Review for Cancellation
FY 2016 Q1	200-BP	WELL	299-E33-205	10/1/2015	Biannual	1		Access Restricted
		WELL	299-E33-361	11/1/2015	Annual	8		
FY 2016 Q2	200-BP	WELL	299-E33-344	2/1/2016	Quarterly	2		
		WELL	299-E33-40	1/1/2016	Annual	10		Maintenance Required
	200-PO	WELL	299-E17-1	2/1/2016	Annual	11		
		WELL	699-20-E12O	1/1/2016	Annual	10		
		WELL	699-33-56	1/1/2016	Annual	10		
		WELL	699-34-42	1/1/2016	Annual	10		Maintenance Required
		WELL	699-49-13E	1/1/2016	Annual	10		
	200-UP	WELL	299-W18-15	2/1/2016	Annual	11		
		WELL	299-W19-107	2/1/2016	Annual	11		
		WELL	299-W19-34B	2/1/2016	Annual	11		
		WELL	299-W19-48	2/1/2016	Biannual	5		Unsuccessful 2-5-2016
		WELL	699-19-88	1/1/2016	Quarterly	1		
	200-ZP	WELL	299-W10-29	2/1/2016	Other	0	Late	Scheduled in Feb, March, and Sept.
		WELL	299-W10-30	2/1/2016	Other	0	Late	Scheduled in Feb, March, and Sept.
		WELL	299-W10-31	2/1/2016	Other	0	Late	Scheduled in Feb, March, and Sept.
		WELL	299-W10-33	2/1/2016	Annual	11		
		WELL	299-W11-18	2/1/2016	Annual	11		
		WELL	299-W11-43	2/1/2016	Annual	11		
		WELL	299-W11-48	2/1/2016	Annual	11		
		WELL	299-W11-87	2/1/2016	Annual	11		Unsuccessful 2-5-2016
		WELL	299-W14-72	2/1/2016	Annual	11		
		WELL	299-W9-2	2/1/2016	Other	0	Late	Scheduled in Feb, March, and Sept.
		WELL	699-49-100C	1/1/2016	Quarterly	1		Maintenance Required

Table 3 Groundwater Sampling Locations in the Central Plateau Scheduled to be sampled in March 2016

200-BP	200-PO	200-UP	200-ZP
299-E27-12	299-E17-12	299-W22-115	299-W10-14
299-E27-13	299-E17-13	299-W22-116	299-W10-29
299-E27-14	299-E24-20	299-W22-47	299-W10-30
299-E27-15	299-E24-22	299-W22-93	299-W10-31
299-E27-155	299-E24-33	299-W23-19	299-W15-42
299-E27-21	299-E25-2	699-34-61	299-W15-46
299-E27-22	299-E25-237	699-35-66A	299-W15-49
299-E27-23	299-E25-36	699-35-78A	299-W15-50
299-E27-24	299-E25-40	699-36-66B	299-W15-7
299-E27-25	299-E25-41	699-36-70A	299-W18-1
299-E27-4	299-E25-6	699-37-66	299-W18-16
299-E27-7	299-E25-93		299-W6-3
299-E28-30	299-E25-94		299-W9-2
299-E33-12	699-52-19		699-47-80AQ
299-E33-341	699-8-17		
299-E33-342	699-8-25		
699-49-57A	699-S2-34B		
699-49-57B	699-S24-19P		
	699-S8-19		

Table 4. WMA C Quarterly Monitoring Wells

SITE NAME
299-E27-12
299-E27-13
299-E27-14
299-E27-15
299-E27-155
299-E27-21
299-E27-22
299-E27-23
299-E27-24
299-E27-25
299-E27-4
299-E27-7

TRI-PARTY AGREEMENT

Change Notice Number TPA-CN- 0719	TPA CHANGE NOTICE FORM	Date: 03/14/2016
Document Number, Title, and Revision: DOE/RL-2014-37, Removal Action Work Plan for 200-DV-1 Operable Unit Perched Water Pumping/Pore Water Extraction, Rev. 0		Date Document Last Issued: 11/30/2015

Approved Change Notices Against this Document: NA

Originator: Mark Byrnes

Phone: 373-3996

Description of Change:

DOE/RL-2014-37, Rev. 0, is revised to add DOE/RL-2016-22, Waste Management Plan for Perched Water Pumping/Pore Water Extraction, 200-DV-1 Operable Unit, and delete DOE/RL-2012-20, Waste Control Plan for the 200-DV-1 Operable Unit.

M.W. Cline and D. Goswami agree that the proposed change
DOE **Lead Regulatory Agency**
modifies an approved workplan/document and will be processed in accordance with the Tri-Party Agreement Action Plan, Section 9.0, *Documentation and Records*, and not Chapter 12.0, *Changes to the Agreement*.

Page 21 of DOE/RL-2014-37 is revised to make the following changes:

- add DOE/RL-2016-22, Waste Management Plan for Perched Water Pumping/Pore Water Extraction, 200-DV-1 Operable Unit, and delete DOE/RL-2012-20, Waste Control Plan for the 200-DV-1 Operable Unit.

Page 29 of DOE/RL-2014-37 is revised to make the following changes:

- add DOE/RL-2016-22, Waste Management Plan for Perched Water Pumping/Pore Water Extraction, 200-DV-1 Operable Unit, and delete DOE/RL-2012-20, Waste Control Plan for the 200-DV-1 Operable Unit




The revisions to pages 21 and 29 of DOE/RL-2014-37, Rev. 0, are attached. Deleted text is identified by ~~striketrough~~. Added text is identified by double underline.

Note: Include affected page number(s)

Justification and Impacts of Change:

Because perched water pumping/pore water extraction is a removal action in accordance with DOE/RL-2014-34, Action Memorandum for 200-DV-1 Operable Unit Perched Water Pumping/Pore Water Extraction, waste will be managed using a waste management plan.

Approvals:

 DOE Project Manager NA	3/17/16 Date	<input checked="" type="checkbox"/> Approved <input type="checkbox"/> Disapproved
 EPA Project Manager	 Date	<input type="checkbox"/> Approved <input type="checkbox"/> Disapproved
 Ecology Project Manager	3/17/16 Date	<input checked="" type="checkbox"/> Approved <input type="checkbox"/> Disapproved

4 Environmental Management and Controls

This chapter describes the environmental management and controls necessary to conduct this removal action.

4.1 Applicable or Relevant and Appropriate Requirement Compliance

ARARs for this removal action are identified in Appendix A of the AM (DOE/RL-2014-34). The key ARARs include standards for waste management, control of releases to the environment, reporting of nonroutine releases to the environment, and protection of cultural and ecological resources. Influent acceptance criteria for the 200 West P&T were also identified as to be considered (TBC) criteria for this removal action. ARARs and TBC criteria are specified and will be implemented in lower tier work control documents and procedures. Appendix B of this RAWP provides the implementation/action strategy for ARARs and TBCs.

4.2 Waste Management Plan

Several waste streams may be generated from this removal action, such as low-level, dangerous, and mixed waste. Purgewater may also be generated from well pumping, extracting, and/or sampling activities. Waste will be generated at two primary locations: the 200 West P&T, and the perched water extraction well field within the B Tank Farm complex. Waste generated from this removal action will comply with ARARs and TBC criteria. Solid waste generated through implementation of this removal action will be disposed at the Environmental Restoration Disposal Facility (ERDF) in accordance with WCH-191, *Environmental Restoration Disposal Facility Waste Acceptance Criteria*. Waste treatment and/or disposal may take place at other facilities on the Hanford Site or at an offsite facility that has been authorized by respective EPA regional offices in accordance with 40 CFR 300.440, "Procedures for Planning and Implementing Off-Site Response Actions."

In accordance with Section 5.2.3 of the AM (DOE/RL-2014-34), the 200-DV-1 OU perched water pumping/pore water extraction removal action well sites and the ERDF are considered a single site for response purposes.

In accordance with Section 5.2.3 of the AM (DOE/RL-2014-34), the 200-DV-1 OU perched water pumping/pore water extraction removal action well sites and the 200 West P&T are considered to be a single site for response purposes.

Waste generated from the removal action at the well field is considered to be investigation-derived waste and will be managed in accordance with DOE/RL-2016-22, *Waste Management Plan for Perched Water Pumping/Pore Water Extraction* ~~DOE/RL-2012-20, *Waste Control Plan for the 200-DV-1 Operable Unit*~~.

Waste generated from treatment of extracted perched water at the 200 West P&T will be managed in accordance with the waste management plan for the 200 West P&T (Appendix B of DOE/RL-2009-124).

4.3 Standards Controlling Releases to the Environment

For radiological and nonradiological emissions, the air emission plan for 200-DV-1 OU perched water pumping/pore water extraction is provided in Appendix C of this RAWP. The air emissions plan demonstrates compliance with the ARARs identified in WAC 246-247, "Radiation Protection—Air Emissions"; WAC 173-480; WAC 173-400, "General Regulations for Air Pollution Sources"; and WAC 173-460, "Controls for New Sources of Toxic Air Pollutants." The air monitoring plan for the 200 West P&T (Appendix C of DOE/RL-2009-124) provides radiological requirements, criteria/toxic air emissions calculations, and control/monitoring requirements for activities at the 200 West P&T.

DOE/RL-2014-37, REV. 0

- DOE/RL-2009-124, 2015, *200 West Pump and Treat Operations and Maintenance Plan*, Rev. 4, U.S. Department of Energy, Richland Operations Office, Richland, Washington. Available at: <http://pdw.hanford.gov/arpir/index.cfm/viewDoc?accession=0080208H>.
- DOE/RL-2010-89, 2010, *Long-Range Deep Vadose Zone Program Plan*, Rev. 0, U.S. Department of Energy, Richland Operations Office, Richland, Washington. Available at: <http://pdw.hanford.gov/arpir/index.cfm/viewDoc?accession=0084131>.
- DOE/RL-2011-40, 2011, *Field Test Plan for the Perched Water Pumping/Pore Water Extraction Treatability Test*, Rev. 0, U.S. Department of Energy, Richland Operations Office, Richland, Washington. Available at: <http://pdw.hanford.gov/arpir/index.cfm/viewDoc?accession=0093355>.
- DOE/RL-2012-20, 2015, *Waste Control Plan for the 200-DV-1 Operable Unit*, Rev. 0, U.S. Department of Energy, Richland Operations Office, Richland, Washington. Available at: <http://pdw.hanford.gov/arpir/index.cfm/viewDoc?accession=1506301062>.
- DOE/RL-2013-37, 2013, *Engineering Evaluation/Cost Analysis for Perched Water Pumping/Pore Water Extraction*, Rev. 0, U.S. Department of Energy, Richland Operations Office, Richland, Washington. Available at: <http://pdw.hanford.gov/arpir/index.cfm/viewDoc?accession=0086598>.
- DOE/RL-2014-34, 2014, *Action Memorandum for 200-DV-1 Operable Unit Perched Water Pumping/Pore Water Extraction*, Rev. 0, U.S. Department of Energy, Richland Operations Office, Richland, Washington. Available at: <http://pdw.hanford.gov/arpir/index.cfm/viewDoc?accession=0082284H>.
- DOE/RL-2014-51, 2015, *Sampling and Analysis Plan for 200-DV-1 Operable Unit Perched Water Pumping/Pore Water Extraction*, Rev. 0, U.S. Department of Energy, Richland Operations Office, Richland, Washington.
- DOE/RL-2016-22, 2016, *Waste Management Plan for Perched Water Pumping/Pore Water Extraction*, Rev. 0, U.S. Department of Energy, Richland Operations Office, Richland, Washington.
- Ecology, EPA, and DOE, 1989a, *Hanford Federal Facility Agreement and Consent Order*, 2 vols., as amended, Washington State Department of Ecology, U.S. Environmental Protection Agency, and U.S. Department of Energy, Olympia, Washington. Available at: <http://www.hanford.gov/?page=81>.
- Ecology, EPA, and DOE, 1989b, *Hanford Federal Facility Agreement and Consent Order Action Plan*, as amended, Washington State Department of Ecology, U.S. Environmental Protection Agency, and U.S. Department of Energy, Olympia, Washington. Available at: <http://www.hanford.gov/?page=82>.
- EPA, Ecology, and DOE, 2008, *Record of Decision, Hanford 200 Area 200-ZP-1 Superfund Site, Benton County, Washington*, U.S. Environmental Protection Agency, Washington State Department of Ecology, and U.S. Department of Energy, Olympia, Washington. Available at: <http://pdw.hanford.gov/arpir/index.cfm/viewDoc?accession=00098825>.
- EPA, Ecology, and DOE, 2012, *Record of Decision for Interim Remedial Action, Hanford 200 Area Superfund Site, 200-UP-1 Operable Unit*, U.S. Environmental Protection Agency, Washington State Department of Ecology, and U.S. Department of Energy, Olympia, Washington. Available at: <http://pdw.hanford.gov/arpir/index.cfm/viewDoc?accession=0091413>.

TRI-PARTY AGREEMENT

Change Notice Number
TPA-CN- 0720

TPA CHANGE NOTICE FORM

Date:
03/14/2016

Document Number, Title, and Revision:

DOE/RL-2014-51, Sampling and Analysis Plan for 200-DV-1 Operable Unit Perched Water Pumping/Pore Water Extraction, Rev. 0

Date Document Last Issued:
11/30/2015

Approved Change Notices Against this Document:

Originator: Mark Byrnes

Phone: 373-3996

Description of Change:

DOE/RL-2014-51, Rev. 0, is revised to add DOE/RL-2016-22, Waste Management Plan for Perched Water Pumping/Pore Water Extraction, 200-DV-1 Operable Unit, and delete DOE/RL-2012-20, Waste Control Plan for the 200-DV-1 Operable Unit.

M.W. Cline and D. Goswami

DOE

Lead Regulatory Agency

agree that the proposed change

modifies an approved workplan/document and will be processed in accordance with the Tri-Party Agreement Action Plan, Section 9.0, *Documentation and Records*, and not Chapter 12.0, *Changes to the Agreement*.

Page 4-1 of DOE/RL-2014-51 is revised to make the following changes:

- add DOE/RL-2016-22, Waste Management Plan for Perched Water Pumping/Pore Water Extraction, 200-DV-1 Operable Unit, and delete DOE/RL-2012-20, Waste Control Plan for the 200-DV-1 Operable Unit.
- Add DOE/RL-2011-41, Hanford Site Strategy for Management of Investigation Derived Waste, as an additional document used to manage purgewater
- Specify the 200 West pump and treat facility for receipt of purgewater
- Acknowledge the need to meet waste acceptance criteria at the 200 West pump and treat facility for purgewater.

Page 6-1 of DOE/RL-2014-51 is revised to make the following changes:

- add DOE/RL-2016-22, Waste Management Plan for Perched Water Pumping/Pore Water Extraction, 200-DV-1 Operable Unit, and delete DOE/RL-2012-20, Waste Control Plan for the 200-DV-1 Operable Unit

The revisions to pages 4-1 and 6-1 of DOE/RL-2014-51, Rev. 0, are attached. Deleted text is identified by strikethrough. Added text is identified by double underline.

Note: Include affected page number(s)

Justification and Impacts of Change:

Because perched water pumping/pore water extraction is a removal action in accordance with DOE/RL-2014-34, Action Memorandum for 200-DV-1 Operable Unit Perched Water Pumping/Pore Water Extraction, waste will be managed using a waste management plan.

Approvals:

DOE Project Manager
NA

Date

3/17/16

☒ Approved ☐ Disapproved

EPA Project Manager

Date

☐ Approved ☐ Disapproved

Ecology Project Manager

Date

3/17/16

☒ Approved ☐ Disapproved

4 Management of Waste

Solid waste will be generated from the implementation of this removal action. Purgewater may also be generated from well pumping, extracting, and/or sampling activities. The solid and liquid wastes are considered to be investigation-derived waste. The waste will be managed in accordance with the following:

- DOE/RL-2011-41, *Hanford Site Strategy for Management of Investigation Derived Waste*
- DOE/RL-2016-22, *Waste Management Plan for Perched Water Pumping/Pore Water Extraction*
DOE/RL-2012-20, *Waste Control Plan for the 200-DV-1 Operable Unit*

The solid waste generated from this sampling activity will be disposed at the Environmental Restoration Disposal Facility (ERDF) in accordance with WCH-191, *Environmental Restoration Disposal Facility Waste Acceptance Criteria*. Waste treatment, disposal, or both may take place at other facilities on the Hanford Site or at RCRA-permitted treatment, storage, or disposal offsite facilities authorized by respective EPA regional offices in accordance with 40 CFR 300.440, "Procedures for Planning and Implementing Off-Site Response Actions," as suitable to receive waste from CERCLA sites.

Offsite analytical laboratories are responsible for the disposal of unused sample quantities. Pursuant to 40 CFR 300.440, approval from the DOE-RL remedial project manager is required before returning unused samples or waste from offsite laboratories.

In accordance with Section 5.2.3 of the action memorandum (DOE/RL-2014-34), the 200-DV-1 OU perched water pumping/pore water extraction removal action well sites and the ERDF are considered to be a single site for response purposes.

In accordance with Section 5.2.3 of the action memorandum (DOE/RL-2014-34), the 200-DV-1 OU perched water pumping/pore water extraction removal action well sites and the 200 West P&T are considered to be a single site for response purposes.

All purgewater will be managed in compliance with DOE/RL-2009-80, *Investigation Derived Waste Purgewater Management Work Plan*, and DOE/RL-2011-41. Purgewater will be collected, and contained at the well head if necessary, until transport to the purgewater modular storage units or to the 200 West P&T, if the 200 West P&T waste acceptance criteria can be met ~~an appropriate P&T facility.~~

DOE/RL-2014-51, REV. 0

- DOE/RL-2009-80, 2009, *Investigation Derived Waste Purge Water Management Work Plan*, Rev. 0, U.S. Department of Energy, Richland Operations Office, Richland, Washington. Available at: <http://pdw.hanford.gov/arpir/index.cfm/docDetail?accession=0094946>.
- DOE/RL-2011-37, 2011, *Sampling and Analysis Plan for the Perched Water Pumping/Pore Water Extraction Treatability Test*, Rev. 0, U.S. Department of Energy, Richland Operations Office, Richland, Washington. Available at: <http://pdw.hanford.gov/arpir/index.cfm/viewDoc?accession=0093356>.
- DOE/RL-2011-40, 2011, *Field Test Plan for the Perched Water Pumping/Pore Water Extraction Treatability Test*, Rev. 0, U.S. Department of Energy, Richland Operations Office, Richland, Washington. Available at: <http://pdw.hanford.gov/arpir/index.cfm/viewDoc?accession=0093355>.
- DOE/RL-2011-41, 2011, *Hanford Site Strategy for Management of Investigation Derived Waste*, Rev. 0, U.S. Department of Energy, Richland Operations Office, Richland, Washington. Available at: <http://pdw.hanford.gov/arpir/index.cfm/viewDoc?accession=0093937>.
- ~~DOE/RL-2012-20, 2015, *Waste Control Plan for the 200-DV-1 Operable Unit*, Rev. 0, U.S. Department of Energy, Richland Operations Office, Richland, Washington. Available at: <http://pdw.hanford.gov/arpir/index.cfm/viewDoc?accession=1506301062>.~~
- DOE/RL-2013-37, 2013, *Engineering Evaluation/Cost Analysis for Perched Water Pumping/Pore Water Extraction*, Rev. 0, U.S. Department of Energy, Richland Operations Office, Richland, Washington. Available at: <http://pdw.hanford.gov/arpir/index.cfm/viewDoc?accession=0086598>.
- DOE/RL-2014-34, 2014, *Action Memorandum for 200-DV-1 Operable Unit Perched Water Pumping/Pore Water Extraction*, Rev. 0, U.S. Department of Energy, Richland Operations Office, Richland, Washington. Available at: <http://pdw.hanford.gov/arpir/index.cfm/docDetail?accession=0082284H>.
- DOE/RL-2014-37, 2015, *Removal Action Work Plan for 200-DV-1 Operable Unit Perched Water Pumping/Pore Water Extraction*, Rev. 0, U.S. Department of Energy, Richland Operations Office, Richland, Washington.
- DOE/RL-2016-22, 2016, *Waste Management Plan for Perched Water Pumping/Pore Water Extraction*, Rev. 0, U.S. Department of Energy, Richland Operations Office, Richland, Washington.
- Ecology, EPA, and DOE, 1989a, *Hanford Federal Facility Agreement and Consent Order*, 2 vols., as amended, Washington State Department of Ecology, U.S. Environmental Protection Agency, and U.S. Department of Energy, Olympia, Washington. Available at: <http://www.hanford.gov/?page=81>.
- Ecology, EPA, and DOE, 1989b, *Hanford Federal Facility Agreement and Consent Order Action Plan*, Washington State Department of Ecology, U.S. Environmental Protection Agency, and U.S. Department of Energy, Olympia, Washington. Available at: <http://www.hanford.gov/?page=82>.
- Ecology Publication No. 04-03-030, 2004, *Guidelines for Preparing Quality Assurance Project Plans for Environmental Studies*, Washington State Department of Ecology, Olympia, Washington. Available at: <https://fortress.wa.gov/ecy/publications/summarypages/0403030.html>.